Drive technology from space travel ...

Development background

The German Aerospace Center (DLR) developed the first remote-controlled robot for the D2 mission (1993).

The problem of meeting the strict weight limit while generating the required force could not be solved with conventional screw drives. Because of these conflicting requirements, the DLR decided to look for a completely new approach.

The project for this solution led to the development of the PWG planetary roller screw.

The functional principle was patented worldwide by the DLR.

The industrial solution

Brilliant design is one thing, but turning it into an industrial-scale product that works reliably in all situations is quite another.

Wilhelm Narr GmbH & Co. KG, an Ortlieb sister company within the Narr group, acquired the licence from the DLR, recognising the great potential of the PWG planetary roller screw with its completely new functionality.

Initial tests under the most severe conditions met every expectation. The results were extremely promising. They provided the impetus to continue to develop the technology on an industrial scale, particularly in terms of production engineering and tribology.

With the merger of Narr and Ortlieb to form Ortlieb Präzisionssysteme GmbH & Co. KG, the well-known Narr servo screw was incorporated into the Ortlieb portfolio as the ASCA servo screw.





